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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/634,085	08/04/2003	Robert A. Roth	DP-309706	7414
22851	7590	08/05/2005		
DELPHI TECHNOLOGIES, INC. M/C 480-410-202 PO BOX 5052 TROY, MI 48007				
			EXAMINER HEPPERLE, STEPHEN M	
			ART UNIT 3753	PAPER NUMBER

DATE MAILED: 08/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/634,085

Applicant(s)

ROTH ET AL.

Examiner

Stephen M. Hepperle

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 June 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) 30-34 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 17 and 18 is/are allowed.
- 6) ☒ Claim(s) 1-16 and 19-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 August 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1/27/04, 4/8/03
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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Applicant's election with traverse of the species of Fig. 4 in the reply filed on 23 June 2005 is acknowledged. The traversal with respect to Fig. 2 is on the ground(s) that a claim readable on Fig. 2 also reads on Fig. 4. This is found persuasive with the current claims. The traversal with respect to Fig. 5 is on the ground(s) that claims 30-34 read on Fig. 4 as well as on elected Fig. 4. This is not found persuasive because claim 30 recites a check valve held in a pump pressure relief valve, with both opening in the same direction. In contrast, the Fig. 2 species has a check valve held within a system pressure relief valve, opening in opposite directions, a subcombination found in the Fig. 4 device. While individual pieces of the Fig. 5 device are found in the elected species, the overall combination as pieced together in claim 30 is not in Fig. 4.

In summary, the new breakdown of species is: a first species of Figs. 2 and 4, and a second species of Fig. 5. The requirement as amended above is still deemed proper and is therefore made FINAL.

Claims 30-34 stand withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 23 June 2005.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 4-16 and 19-29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which

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applicant regards as the invention. In claims 4 and 16, "said pressure relief valve" has no antecedent basis. The claimed pathway doesn't seem to make sense if applicant intended "system pressure relief valve", unless the existing recitation of the system valve is changed to "check valve". In claim 19, line 2 it is unclear which pressure relief valve is recited.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Riggle in view of Novak. Riggle shows a combination bidirectional valve for a fuel pump system in a vehicle. Check valve 50 seats in inner opening 83 of system pressure relief valve 70. The check valve permits flow to the engine, and the relief valve permits reverse flow. Novak shows a combination bidirectional valve (Figs. 4-5) where check valve 41 is nested in a pressure relief valve 35. Each valve has an o-ring 36, 43, that seat on a flange at an inner opening of the nesting valve or housing. The springs extend from the seat to a flange on the biased valve. It would have been obvious to replace the relatively long Riggle combination valve with the Novak valve because it is more compact, a helpful consideration with modern smaller cars. With respect to claim 3, it is well known to make valves out of brass because brass is well known in the fluid arts, and is also well known in fuel systems (carburetor parts, for example). With respect to claim 16, it would have been obvious to set pressures of the various valves to any desired value to accomplish the necessary functions. The Riggle check valve opens at around 2-5 psi (roughly 13-

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33 kPa, col. 3, lines 21-25) and vent valve opens at a differential pressure of around 25 psi (roughly 170kPa, col. 4, lines 4-14). With a regulator pressure of 600kPa, the combination valve would open at substantially the claimed values.

Claims 17-18 are allowable over the prior art. Riggle shows a combination valve (Fig. 7) providing the function of the device of claim 17, but not having the same triple nested structure.

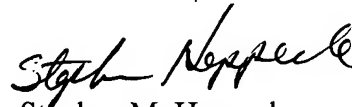
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Briggs shows a similar combination valve, where the three functions set forth in claim 17 are done by three distinct valves in a single housing. The other references show nested bidirectional valves.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen M. Hepperle whose telephone number is 571-272-4913. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene Mancene can be reached on 571-272-4930. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Stephen M. Hepperle
Primary Examiner
Art Unit 3753

SMH